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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,278	08/09/2000	RICHARD A. BAKER	SAA-34-1	4938

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EXAMINER	
BRANCOLINI, JOHN R	

ART UNIT	PAPER NUMBER
2153	3

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/635,278	BAKER, RICHARD A.	
	Examiner	Art Unit	
	John R Brancolini	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7-18,20-22,24-30,32,34,35 and 37-46* is/are rejected.

7)☒ Claim(s) *3,6,19,23,31,33,36* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *Aug 9, 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 1 - 46 are pending.

Priority

No Claim for priority has been made in this application.

The effective filing date for the subject matter defined in the pending claims in the application is September 9, 2000.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because:

- Figure 2 does not include the Web Server 30 referenced on page 6 line 29, application programs 36 referenced on page 7 line 12, dual port memory 38 referenced on page 7 line 12. Please note this is not an exhaustive list of incorrect references, and the examiner requests the applicant to correct any other reference mistakes in the detailed description.
- In Figure 2, the item labeled User is not given a reference number, however it is referenced as User 2 on page 5 line 24.
- In Figures 2 and 3, both items network and Internet are given the reference number 14.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

- The section headings are to be typed in all capitals without bolding or underlining.
- The Detailed Description of Figure 1 appears to incorporate elements of Figures 2 and 3. It appears to the examiner that the detailed description does not match the set of drawings supplied with the application as similar informalities occur in the discussion of Figures 2, 3, and 4.
- Some elements illustrated and given reference numbers in Figures 5 and 6, such as the Client Task 58 and The FTP Task 59, are not referred to in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 7-18, 20, 24-30, 32, 37-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papadopoulos et al. (US Patent 6587884), hereinafter referred to as Papadopoulos, in view of Steen, III et al. (US Patent 6510350), hereinafter referred to as Steen.

In regards to claim 1, Papadopoulos discloses a control system for access to a programmable logic controller. Papadopoulos shows the system having the following components:

- A programming device operably connected to the communication network (A personal computer operably connected to a network; Fig. 3 item 8, col 3 lines 23-32).
- A program package embedded in the programming device (The personal computer inherently contains an operating system as well as a commercial browser, col 3 lines 24-25).
- At least one web page resident on the programming device and operably connected to the program package, wherein the web page is accessible to a user using a web browser. (The personal computer has a commercial browser for viewing the contents of the web site, col 3 lines 23-27)

Although Papadopoulos discloses all these features Papadopoulos lacks the ability to edit the application program as well as the ability to remotely edit the application program using the web page.

In an analogous art Steen shows a system for monitoring and controlling remote equipment including a programming device connected to the communication network, a program package embedded in the programming device, as well as:

- Disclosing the ability of the user to edit or reconfigure the control parameters of monitoring devices as well as remote equipment from a browser (col 1 lines 40-41, col 2 lines 32-34).

Given this information a person of ordinary skill in the art would have recognized the advantages of both local and remote editing of the control program as taught by Steen in order to increase overall system convenience by allowing both local system customization as well as worldwide programming of the automation devices through a network browser.

In regards to claim 2, Papadopoulos discloses the web browser is resident within the programming device (Fig. 1 item 10, col 3 lines 23-25).

In regards to claim 7, Papadopoulos discloses the factory automation device is a programmable logic controller (Fig. 2 item 32, col 4 lines 15-17).

In regards to claim 8, Papadopoulos discloses the factory automation device is an IO module (Fig. 2 item 40, col 4 lines 30-31).

In regards to claim 9, Papadopoulos discloses the communication network is Ethernet (col 4 lines 36-37).

In regards to claim 10, Papadopoulos discloses an interface module for operably connecting the programming device to the communication network (the personal computer is connected to a network using one of various interconnection services for the physical electrical connection, col 3 lines 23-32).

In regards to claim 11, Papadopoulos discloses an interface module comprising:

- A real time operating system (Fig. 3 item 44, col 4 lines 43-44).
- A network interface for communicating with the communication network (col 4 lines 51-56).

- A driver for communicating with the programming device (Fig. 3 item 48, col 4 line 52).
- A protocol stack (Fig 3 item 54, col 3 lines 45-46).
- A client task for communicating with the protocol stack for responding to received requests (Fig. 3 item 58, col 7 lines 14-16).
- A server task for communicating with the protocol stack for responding to received requests (Fig. 3 item 60, col 8 lines 5-8).
- A protocol task for communicating with the protocol stack for receiving and responding to protocol task requests (Fig. 3 item 62, col 8 lines 59-64).

In regards to claim 12, Papadopoulos discloses the communication network is a worldwide network known as the Internet using an Internet Protocol (Fig. 1 item 14, col 3 lines 27-28, lines 38-39).

In regards to claim 13, Papadopoulos discloses an interface module functioning as a web site on the Internet, the interface having a global IP address (A computer web site located on a server, the server having a global IP address; Fig. 1 item 4, col 3 lines 40-42; Fig. 3 item 18, col 5 lines 28-29).

In regards to claim 14, Papadopoulos discloses the protocol stack is a Transmission Control Protocol stack wherein the protocol task includes a server task using a hypertext transport protocol (HTTP) task to deliver hypertext documents to the network interface (Fig.3 item 54, col 3 lines 42-46; Fig. 3 item 62, col 8 lines 59-60).

In regards to claim 15, Papadopoulos discloses a system wherein the HTTP task accepts a connection, parses an HTTP request, and calls the real time operating system to process the request (col 8 line 65 - col 9 line 1).

In regards to claim 16, Papadopoulos discloses an interface module further including a dual TCP/IP stack for data transferring comprising a first stack capable of handling a broad range of TCP/IP messages and a second stack optimized to handle very specific TCP/IP messages (col 4 line 66 – col 5 line 2, col 5 lines 7-8).

In regards to claim 17, Papadopoulos discloses a control system for access to a programmable logic controller. Papadopoulos shows the system having the following components:

- Means for coupling a programming device to the communication network (A personal computer connected to the network using one of several available physical and electrical connections; col 3 lines 23-24, lines 30-32).
- At least one web page resident on the programming device and operably connected to the program package, wherein the web page is accessible to a user using a web browser (The personal computer has a commercial browser for viewing the contents of the web site, col 3 lines 23-27).

Although Papadopoulos discloses all these features Papadopoulos lacks the means for editing the application program as well as the means to edit the application program through the web page.

In an analogous art Steen shows a system for monitoring and controlling remote equipment including means for connecting a programming device to the communication network, a program package embedded in the programming device, as well as:

- Disclosing the ability of the user to edit or reconfigure the control parameters of monitoring devices as well as remote equipment from a browser. (col 1 lines 40-41, col 2 lines 32-34)

Given this information a person of ordinary skill in the art would have recognized the advantages of locally editing the control program as well as remotely editing using a web page displayed in a browser as taught by Steen in order to increase overall system convenience by allowing system customization both locally and worldwide through programming of the automation devices through a network browser.

In regards to claim 18, Papadopoulos discloses the web browser is resident within the programming device (Fig. 1 item 10, col 3 lines 23-25).

In regards to claim 20, Papadopoulos discloses the communication network is Ethernet (col 4 lines 36-37).

In regards to claim 24, Papadopoulos discloses a means for coupling including an interface module comprising:

- A real time operating system (Fig. 3 item 44, col 4 lines 43-44).
- A network interface for communicating with the communication network (col 4 lines 51-56).
- A driver for communicating with the programming device (Fig. 3 item 48, col 4 line 52).

- A protocol stack (Fig. 3 item 54, col 3 lines 45-46).
- A client task for communicating with the protocol stack for responding to received requests (Fig. 3 item 58, col 7 lines 14-16).
- A server task for communicating with the protocol stack for responding to received requests (Fig. 3 item 60, col 8 lines 5-8).
- A protocol task for communicating with the protocol stack for receiving and responding to protocol task requests (Fig. 3 item 68, col 8 lines 59-64)

In regards to claim 25, Papadopoulos discloses the communication network is a worldwide network known as the Internet using an Internet Protocol (Fig. 1 item 14, col 3 lines 27-28, lines 38-39).

In regards to claim 26, Papadopoulos discloses an interface module functioning as a web site on the Internet, the interface having a global IP address (A computer web site located on a server, the server having a global IP address; Fig. 1 item 4, col 3 lines 40-42; Fig. 3 item 18, col 5 lines 28-29).

In regards to claim 27, Papadopoulos discloses the protocol stack is a Transmission Control Protocol stack wherein the protocol task includes a server task using a hypertext transport protocol (HTTP) task to deliver hypertext documents to the network interface (Fig. 3 item 54, col 3 lines 42-46; Fig 3 item 62, col 8 lines 59-60).

In regards to claim 28, Papadopoulos discloses a system wherein the HTTP task accepts a connection, parses an HTTP request, and calls the real time operating system to process the request (col 8 line 65 - col 9 line 1).

In regards to claim 29, Papadopoulos discloses an interface module further including a dual TCP/IP stack for data transferring comprising a first stack capable of handling a broad range of TCP/IP messages and a second stack optimized to handle very specific TCP/IP messages (col 4 line 66 – col 5 line 2, col 5 lines 7-8).

In regards to claim 30, Papadopoulos discloses a method for monitoring a control system for a programmable logic controller. Papadopoulos shows the method having the following components:

- A programming device for accessing the application program (The user will have a personal computer; Fig. 1 item 8, col 3 lines 23-24)
- Viewing the application program using a web browser operably connected to the programming device (The user will have a personal computer having a commercially available browser, the browser will send commands to the web site which will use the application program to display information; Fig. 1 item 10, col 3 lines 23-25, 62-64).

Although Papadopoulos discloses these features Papadopoulos lacks the option of editing the application program.

In an analogous art Steen shows a method for monitoring and controlling remote equipment including a programming device connected to the communication network, a program package embedded in the programming device, as well as:

- Disclosing the ability of the user to edit or reconfigure the control parameters of monitoring devices as well as remote equipment. (col 1 lines 40-41, col 2 lines 32-34) .

Given this information a person of ordinary skill in the art would have recognized the advantages of editing the application program as taught by Steen in order to increase overall system convenience by allowing customizable programming of the automation devices.

In regards to claim 32, Papadopoulos discloses the web browser is resident within the programming device (Fig. 1 item 10, col 3 lines 23-25).

In regards to claim 37, Papadopoulos discloses the factory automation device is a programmable logic controller (Fig 2 item 32, col 4 lines 15-17).

In regards to claim 38, Papadopoulos discloses the factory automation device is an IO module (Fig. 2 item 40, col 4 lines 30-31).

In regards to claim 39, Papadopoulos discloses the communication network is Ethernet (col 4 lines 36-37).

In regards to claim 40, Papadopoulos discloses an interface module for operably connecting the programming device to the communication network (the personal computer is connected to a network using one of various interconnection services for the physical electrical connection, col 3 lines 23-32).

In regards to claim 41, Papadopoulos discloses an interface module comprising:

- A real time operating system (Fig. 3 item 44, col 4 lines 43-44).
- A network interface for communicating with the communication network (col 4 lines 51-56).
- A driver for communicating with the programming device (Fig. 3 item 48, col 4 line 52).

- A protocol stack (Fig. 3 item 54, col 3 lines 45-46).
- A client task for communicating with the protocol stack for responding to received requests (Fig. 3 item 58, col 7 lines 14-16).
- A server task for communicating with the protocol stack for responding to received requests (Fig. 3 item 60, col 8 lines 5-8).
- A protocol task for communicating with the protocol stack for receiving and responding to protocol task requests (Fig. 3 item 62col 8 lines 59-64).

In regards to claim 42, Papadopoulos discloses the communication network is a worldwide network known as the Internet using an Internet Protocol (Fig. 1 item 14, col 3 lines 27-28, lines38-39).

In regards to claim 43, Papadopoulos discloses an interface module functioning as a web site on the Internet, the interface having a global IP address (A computer web site located on a server, the server having a global IP address; Fig. 1 item 4, col 3 lines 40-42; Fig. 3 item 18, col 5 lines 28-29).

In regards to claim 44, Papadopoulos discloses the protocol stack is a Transmission Control Protocol stack wherein the protocol task includes a server task using a hypertext transport protocol (HTTP) task to deliver hypertext documents to the network interface (Fig. 3 item 54, col 3 lines 42-46; Fig 3 item 62, col 8 lines 59-60).

In regards to claim 45, Papadopoulos discloses a system wherein the HTTP task accepts a connection, parses an HTTP request, and calls the real time operating system to process the request (col 8 line 65 - col 9 line 1).

In regards to claim 46, Papadopoulos discloses an interface module further including a dual TCP/IP stack for data transferring comprising a first stack capable of handling a broad range of TCP/IP messages and a second stack optimized to handle very specific TCP/IP messages (col 4 line 66 – col 5 line 2, col 5 lines 7-8).

Claims 4-5, 21-22, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Papadopoulos in view of Steen as applied to claims 1,2 7-9, 11-16 above, and further in view of Saitoh et al (US Patent 6038486) hereinafter referred to as Saitoh.

In regards to claim 4, 21 and 34, Papadopoulos in view of Steen do not disclose the application program being viewed as at least one file within the programming device accessible using a standard File Transfer Protocol.

Saitoh shows a system for controlling, monitoring and analyzing control devices including:

- A method of transferring a file using a File Transfer Protocol (col 3 lines 44-45).

Given this feature, a person having ordinary skill in the art would have recognized the advantages of using a File Transfer Protocol for the transmission of the application program files as taught by Saitoh to increase system usability and convenience by allowing accessibility to the files through the world-wide network at any programming device utilizing a network browser.

In regards to claim 5, 22 and 35, Papadopoulos in view of Steen do not explicitly disclose a method of converting the application program file to be viewed on the web browser through either JAVA or HTML.

Saitoh shows a system for controlling, monitoring and analyzing control devices including:

- A method of automatically converting files to HTML documents for viewing in a browser (col 1 lines 47-48).

Given this feature, a person having ordinary skill in the art would have recognized the advantages of converting files to HTML for viewing in a browser as taught by Saitoh to increase the speed and functionality of the system by allowing the user to utilize any browser capable of reading HTML documents without needing to incorporate any extra software.

Allowable Subject Matter

Claims 3, 6, 19, 23, 31, 33, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R Brancolini whose telephone number is (703) 305-7107. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone

number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5484.

JRB

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